Knowledge Management

Maximizing Human Potential

A concept paper from

The LearningSource

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Maximizing Human Potential

Today's volatile business environment demands a new attitude and approach within organizations—actions must be anticipatory, adaptive, and based on a faster cycle of knowledge creation.

There are many definitions of knowledge management. It has been described as "a systematic process for capturing and communicating knowledge people can use." Others have said it is "understanding what your knowledge assets are and how to profit from them." Or the flip side of that: "to obsolete what you know before others obsolete it." Perhaps the simplest definition of knowledge management is "sharing what we know with others." In all of these definitions, the emphasis is on human know-how and how it brings value to an organization. But utilizing individual expertise to get maximum return for an organization is not as easy as it may sound.

Why is KM Important in Today's Business Climate?

Today's business environment is characterized by continuous, often radical change. Such a volatile climate demands a new attitude and approach within organizations—actions must be anticipatory, adaptive, and based on a faster cycle of knowledge creation.

Some of the current challenges businesses face:

- a growing emphasis on creating customer value and improving customer service;

- an increasingly competitive marketplace with a rising rate of innovation;

- reduced cycle times and shortened product development times;

- a need for organizational adaptation because of changing business rules and assumptions;

- a requirement to operate with a shrinking number of assets (people, inventory, and facilities);

- a reduction in the amount of time employees are given to acquire new knowledge; and

- changes in strategic directions and workforce mobility that lead to knowledge loss.

New products and innovations are increasing at a faster rate than ever before, along with evolutions in customer preference and need. Managers must no longer investigate their customers superficially. They must dig more deeply than surveys and feedback forms. As organizations have become more complex and information more readily accessible, forward thinking managers have grown concerned with how to allow knowledge to flow freely and how to control and manage this vital flow of information and technology at the same time.

All of these factors make knowledge management a necessity rather than a luxury. Organizations must have a clear handle on how knowledge is discovered, created, dispersed, and put to use. In some ways, knowledge management is more essential to agency success than capital or labor, yet often it is the most overlooked. The supply chain, for example, relies upon knowledge from diverse areas including planning, manufacturing, warehousing, and distribution.

Of growing concern . . .

Why is knowledge management so important to public-sector organizations? In part because of the prospective loss of employees due to an aging workforce. A recent GAO report indicated that a substantial portion of the federal workforce would become eligible to retire or will retire over the next five to 10 years, and that workforce planning is critical to ensure that agencies have sufficient and appropriate staff to account for these retirements.

In addition, high staff turnover, lack of adequate training, and a tendency to maintain the status quo, further impact and impede the success of knowledge retention and growth. Oftentimes, when people leave an organization, they take a wealth of knowledge about their jobs with them. Knowledge management attempts to secure and replenish the learning experiences, as well as the work products, of the individuals who comprise an organization.

Knowledge Management provides the processes and structures to create, capture, analyze, and act on information. It highlights the conduits to knowledge, as well as the bottlenecks.

The Benefits of Knowledge Management

Whether to minimize loss and risk, improve organizational efficiency, or embrace innovation, knowledge management efforts and initiatives add great value to an organization. Some of the benefits of KM include:

• facilitates better, more informed decisions;

• contributes to the intellectual capital of an organization;

• encourages the free flow of ideas which leads to insight and innovation;

• eliminates redundant processes, streamlines operations, and enhances employee retention rates;

• improves customer service and efficiency; and

• leads to greater productivity.

What Should Knowledge Management Accomplish?

The challenge of knowledge management is to determine what information within an organization qualifies as "valuable." All information is not knowledge, and all knowledge is not valuable. The key is to find worthwhile knowledge within a vast sea of information. Identifying knowledge assets requires that agencies identify the knowledge they currently have and the knowledge they will need to have for future business processes. They must ask themselves how new knowledge will impact organizational tasks and work processes. What needs to change? And how will this information keep the organization competitive?

This necessitates arriving at a common business language—one that avoids jargon and that both general managers and legislatures can understand. Effective Knowledge managers will find accessible ways to represent this knowledge to others. They also will be adept at re-fashioning knowledge for different users, applications, and contexts.

Knowledge managers should be aware of the impact of radical change on employees. A worker might be

confronted with a new situation in which his or her past experience is insufficient—the situation is too complex or requires technical knowledge they lack. This can make employees feel trapped, as it threatens their self-image and sense of worth. A good knowledge manager will find ways to ensure that accommodation to change is less threatening.

Knowledge managers must have a vision of what they want their learning organization to be. Such a vision must be given top-level commitment and high-priority communication. It should spur and catalyze the imagination, encouraging workers to think about the future in improvisational and innovative ways. A good knowledge manager will unleash the creative potential in people, embrace new ideas, and apply technical know-how to develop new work processes that keep the organization competitive and future-focused.

A few things to remember:

• *KM is about people*, what they know, and how what they know can support business and organizational objectives. It draws on human competency, intuition, ideas, and motivations. It is not a technology-based concept. Although technology can support a KM effort, it shouldn't begin there.

• *KM is orderly and goal-directed*. It is inextricably tied to the strategic objectives of the organization. It uses only the information that is the most meaningful, practical, and purposeful.
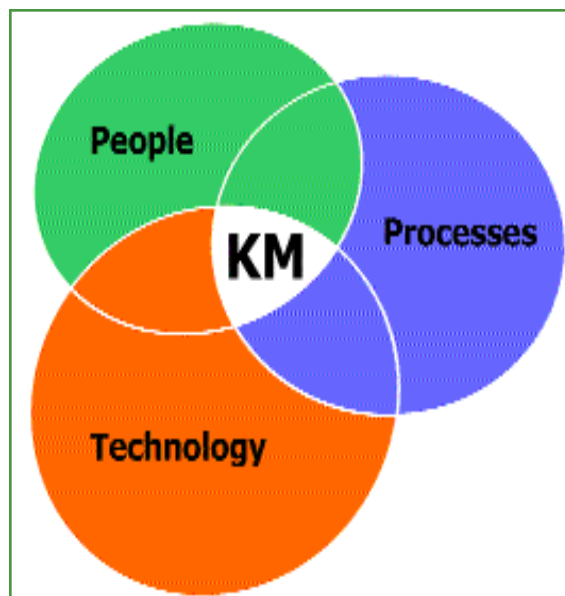
Knowledge Management does not have a beginning and an end. It is ongoing, organic, and ever-evolving.

• *KM is never fixed and unchanging.* There is no such thing as an immutable law in KM. Knowledge is constantly tested, updated, revised, and sometimes even "obsoleted" when it is no longer practicable. It is a fluid, ongoing process.

• *KM is value-added*. It draws upon pooled expertise, relationships, and alliances. Leading organizations can further the two-way exchange of ideas by bringing in experts from the field to advise or educate managers on recent trends and developments. Forums, councils, and boards can be instrumental in creating common ground and organizational cohesiveness.

• *KM is visionary.* This vision is expressed in strategic business terms rather than technical terms, and in a manner that generates enthusiasm, buy-in, and motivates managers to work together toward reaching common goals.

• *KM is complementary.* It can be integrated with other organizational initiatives such as Total Quality Management (TQM). It is important for knowledge managers to show interim successes concurrent with more protracted efforts such as multiyear systems development initiatives or "bigger picture" infrastructure projects, such as reengineering.

Knowledge and Information . . . Not the Same

There are basically two kinds of knowledge—*explicit* and *tacit*. Explicit knowledge is knowledge that can be measured, documented, and archived. Expressed in language or captured in drawings, it is the kind of information found in databases, filing cabinets, and strategic plans. Tacit (or implicit) knowledge on the other hand is human brain power—the information and know-how that lives inside people's heads. It is derived from intuition, perception, senses, physical experience, and more.

These two types of knowledge should work collaboratively. Information (the data a computer produces) does not generate much potential for strategic action.

When it is combined with human interpretation and individual contexts and experiences, however, it can inform and drive organizational success.

KM and IT Investments

The confusion between knowledge and information can result in IT investments that have only marginal results. To maximize the IT dollar, information must be utilized as it relates to organizational performance. True knowledge creation can only occur when real people socially interact and share with one another. *People are the key*. KM utilizes more than just the work products of an organization's employees; it takes advantage of their experience.

The Vital Role of the CIO

Congress recognized the need for greater leadership in information management and technology in the Clinger-Cohen Act of 1996, which mandated the position of chief information officer (CIO) for executive departments and agencies. These CIOs must confront the challenge of building credible organizations and developing knowledge management capabilities that meet mission needs.

Government CIOs should ensure that the models they choose are consistent with the business, technical, and cultural contexts of their enterprises. For instance, one agency might require a CIO who functions as a change agent, while another might be looking for an operations specialist. Still another may be in need of someone who could play the role of oversight/policy manager. Whatever the objective, the position of CIO should be evolutionary rather than static in nature. Initial CIO models may need to be adjusted over time as organizational expectations grow and change.

CIOs as Change Agents

Through intelligent use of knowledge management, CIOs can be important change agents in organizations, applying technology to achieve major improvements in financial business processes and operations. The following are some of the skills CIOs should have:

• They should bring a hybrid of business and technical expertise to the organization.

• They should challenge conventional approaches and develop new methods and systems for delivering mission benefits.

• They should understand IT principles and be able to act as strategists who help resolve business dilemmas.

• They should be business managers, with financial, administrative, and corporate management experience.

• They should be leaders who are innovative, flexible, good at communicating, interpersonally effective, and politically astute;

• They should bridge the gap between technology and business by networking, forming alliances, and building friendships.

• They should be avid learners who seek advice from successful peers, who share capabilities and expertise with others, and who benchmark with other leading organizations.
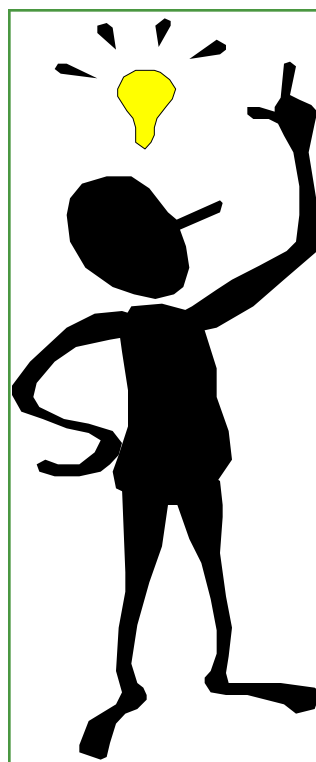
Differences Between Public- and Private-Sector CIOs

Federal CIOs are constrained by some organizational attributes typical of the federal sector, including little flexibility in financial reward systems and highly distributed organizational structures. GAO has outlined some of the challenges they face:

• Agency heads are political appointees who are often more focused on policy issues than operational issues. This can deny the "CEO" (agency or department head) the support that is critical for successful integration of information technology into business processes.

• Personnel decisions are often constrained due to work rules or   organizational factors. Current information management job descriptions do not match the occupations recognized in industry today. In addition, training funds are often limited due to budget considerations.

• Duties that would typically be a CIO's responsibility in the private sector may not be under a federal CIO's direction at all. For example, some federal CIOs are in charge of policy and oversight functions, but have operational responsibilities as well.

• IT funding faces unique challenges in the public sector. Legislative actions may require extensive systems modifications and IT funds may often be contained within the appropriations for a specific program, making them less visible and, if part of discretionary spending, more subject to volatile changes in the federal budget. Long-term investment strategies also are difficult because agencies put together funding requests 18–24 months in advance of funding availability.

However, federal organizations also face many of the same issues as their private sector and state government counterparts. These include the challenge of linking IT and management to agency mission, nurturing and legitimizing information management leadership, skills building and utilization, and performance measurement.

Federal CIOs as Successful Knowledge Managers

GAO recently released a report identifying six principles and key characteristics of CIO management in leading organizations. GAO arrived at these principles and practices based on interviews with private-sector and state government entities.

1. Recognize the Role of Information Management in Creating Value. An organization must recognize and accept the critical role information management plays in the success of an organization, and the leadership role the CIO must assume in order to maximize the full potential of information technology.

2. Position the CIO for Success. The CIO must be recognized as a full participant of the executive management team, and be given the technical and management skills to meet business needs.

3. Ensure the Credibility of the CIO Organization. Without credibility, the CIO organization will struggle. The CIO must have the commitment of line management; must accomplish quick, high-impact, and visible successes balanced with longer-term strategies; and must learn from partnering with successful leaders in the external information management community.

4. Measure Success and Demonstrate Results. Technical measures must be balanced with business measures, and managers must continually work to establish active feedback between performance measures and business processes.

5. Organize Information Resources to Meet Business Needs. In order to execute its responsibilities reliably and efficiently, the CIO organization must have a clear understanding of its responsibilities in meeting business needs. The organization should be flexible enough to adapt to change.

6. Develop Information Management Human Capital. The CIO organization identifies the skills it needs to implement information management in line with business needs; develops innovative ways to attract and retain talent; and provides the training, tools and methods IT professionals must have to effectively perform their duties.

Managing and integrating complex processes, technologies, and telecommunications networks is an ongoing challenge within federal agencies. Knowledge managers play a critical role in creating environments that are conducive to sharing ideas on how information technology can support business processes and vice versa.

See:

—*Executive Guide: Maximizing the Success of Chief Information Officers*. GAO/01-376G. February 2001.

—*Federal Chief Information Officer: Leadership Needed to Confront Serious Challenges and Emerging Issues*. GAO/T-AIMD-00-316. September 12, 2000.

—*Information and Technology Management: Achieving Sustained and Focused Governmentwide Leadership*. GAO-01-583-T. April 3, 2001.

The OSD Comptroller iCenter and Knowledge Management

The OSD Comptroller iCenter is a unique venue for supporting and extending the principles of knowledge management within DoD. Positioned as a single-source locale serving a wide variety of audiences—program managers, financial managers, Congress, the public, and more—it is a place where many information roads (and needs) converge. The iCenter also has been envisioned as a dynamic, self-replenishing medium, an entry and exit point for people who want to broaden their skills base and enhance their understanding of financial management tools and business best practices.

For more information, visit the iCenter at:
http://www.dtic.mil/comptroller/